

WETLANDS ASSESSMENT, INVENTORY, AND PRIME WETLANDS DESIGNATION PROJECT IN THE TAYLOR RIVER WATERSHED

A Final Report to
The New Hampshire Estuaries Project
Submitted by the

Hampton Conservation Commission in conjunction with the
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Table of Contents

Executive Summary and Introduction
Project Goals and Objectives
Methods
Results and Discussion
Conclusions
Recommendations

Appendices

- Appendix A:** Map 1, original USGS map with initial outline of Project focus area
- Appendix B:** 2 Program Brochures for public workshops offered in October and December of 2004
Letter sent to all abutters
Sign in sheets from various public meetings
- Appendix C:** Final Taylor River Watershed Wetland Inventory Report, Hampton and Hampton Falls, NH

Executive Summary and Introduction

The purpose of this project was to provide significant educational efforts on wetlands functions and values, prime wetlands designation, on-the-ground inventory findings, wildlife habitat, and New Hampshire's Prime Wetlands laws and rules for the two communities located within the project focus area. The focus area for this project was the Taylor River Watershed, which comprises the Taylor River as it flows through both Hampton and Hampton Falls, a bit of Ash Brook and Old River as it flows through Hampton, and Grapevine Run as it flows through Hampton Falls. This project assessed over 152 wetland areas containing approximately 620 acres. This project included a comprehensive wetland resource assessment of an area that was originally roughly defined as shown on Map 1 (Appendix A). A NH Certified Wetland Scientist was hired by the Town of Hampton to complete an inventory of wetlands along the Taylor River corridor, and to identify individual wetland areas as well as wetland complexes that were potentially suitable for prime wetlands designation. Once that assessment was completed, four distinct areas were chosen as potential candidates for prime wetlands designation, and a functions and values assessment was conducted on each candidate. The *Wetlands Assessment, Inventory, and Prime Wetland Designation Project in the Taylor River Watershed* project offered substantial education and outreach to both conservation commissions, residents, and municipal officials, and was successful in helping to advance the continuation of evaluating additional wetland complexes within each community.

No warrant articles were prepared for town meeting for either community, and there were no prime wetlands application submissions to the NH Department of Environmental Services (DES) completed during the length of this project. However, conservation commission members became educated on prime wetlands designation, and both communities have jointly proceeded to complete the wetlands assessment for the remainder of each community. In fact, with the assistance of this project and as a follow up to a formerly funded project by the New Hampshire Estuaries Project (NHEP) on shoreland protection, there are landowners along the Taylor River in both communities that are interested in participating in permanent protection efforts. The educational efforts on wetland functions and values, the importance of protecting prime habitat, and on NH RSA 482 and Chapter Wt 700 of the NH DES Administrative Rules regarding the law and rules has brought much interest on this topic in both communities. Both communities are jointly moving forward with prime wetland inventories for the remainder of wetlands in each community, with additional support from the NHEP in 2005. Due to this advancement, it was decided by both communities that another year of educational initiatives was important, and as there is the possibility of redelineating existing prime candidate boundaries, no warrant articles were prepared for 2005. Completing full wetland assessments and determining additional prime wetlands candidates were recognized as being critical for each community, with the provision that it include substantial educational opportunities. All of the outcomes from the *Wetlands Assessment, Inventory, and Prime Wetland Designation Project in the Taylor River Watershed* project have given both communities a renewed sense of the importance of

stewardship, understanding and documenting, and protecting these critical natural resources.

Project Goals and Objectives

The project involved two main phases:

- 1) Public informational meetings and educational initiatives to promote awareness of the NHEP Management Plan, functions and values of wetlands, habitat assessment, and the law at the local and state level for prime wetlands designation, and what it means to landowners took place through out the project. This phase included several informal and formal public workshops held in both Hampton Falls and Hampton on all of the above-mentioned topics.
- 2) Hiring a NH Certified Wetland Scientist to complete the wetlands inventory and assessment, to identify wetlands potentially suitable for prime wetlands designation, and to complete a functions and values assessment of each of the prime wetland candidates by using the *Method for Comparative Evaluation of Nontidal Wetlands in New Hampshire (NH Method) (1991)*. This phase did not include the drafting of local warrant articles due to the decision by both communities to jointly inventory and assess the remaining wetlands in 2005. This phase included the coordination, review, and comment of draft information/reports, and the decision to jointly complete the wetlands assessment and prime wetlands designation in full in 2005, with funding support from NHEP.

Methods

It is important to note that the success of this project involved the collaboration of a variety of natural resource groups and agencies. The UNH Cooperative Extension assisted with outreach efforts, and the Rockingham County Conservation District (RCCD) was involved with the coordination and public outreach of the entire project. Although the result (i.e., draft warrant articles for the local designation of prime wetland candidates) was not reached during the timeframe of this project, significant advances on educating residents and municipal officials on wetlands functions and values, and on the law regarding prime wetlands occurred. Moreover, the successful application and resultant funding opportunity to complete the prime wetlands assessment in both communities represents a considerable achievement of this project. For both communities the accomplishments of this project in addition to the educational outreach has been very successful. The most significant accomplishments for both communities are bulleted for informational purposes. It should be recognized that all parties involved in each of the documented tasks have expended a substantial amount of time, effort, energy, and resources.

- ❖ RCCD coordinated with the Towns of Hampton and Hampton Falls on organizing and completing the landowner/abutter data needed for sending letters and information on the prime wetlands assessment. Town staff and Conservation

Commission members spent a great deal of time completing this task so that the data would be available repeatedly. Initially, only 50 abutters were estimated. However, both towns included approximately 160 abutters, who were notified throughout this project. RCCD also coordinated with both towns and the Rockingham Planning Commission on existing GIS mapping tools available for this project. There were 1998 digital color infrared orthophotographs available for both communities that advanced this evaluation (see Appendix C).

- ❖ RCCD coordinated with the Towns of Hampton and Hampton Falls on drafting and receiving comments/edits on a Request for Proposal (RFP) from qualified individuals or companies for the inventory, assessment, delineation, mapping and designation of possible prime wetland candidates within the Taylor River Watershed as roughly shown on Map 1 (provided in previous reports) (Appendix A). Applicants responded and the RFP was then redrafted and resubmitted again in June of 2004 to several local papers and local wetland scientists. The RCCD coordinated reviews and interviews with possible candidates. During the interview process the project focus area was refined to include the Grapevine Run area in Hampton Falls and an area to the east of Route 95 in Hampton. Gove Environmental Services, Inc. was selected by the Town of Hampton, and work on the project began in August of 2004.
- ❖ RCCD organized and provided public relations on an introductory workshop on the NHEP Management Plan, the overall project, and on information on Prime Wetlands Designation at the local and state level in June of 2004. The program brochure was distributed throughout both communities, presented on local access cable, and provided to local newspapers for distribution (provided in previous reports).
- ❖ Once field-work was initiated, additional meetings and informal gatherings took place with the wetland consultant to determine the progression of this project. RCCD provided a draft letter to both Conservation Commissions to mail to all abutters regarding this project, which offered the wetland consultant as the main contact for any additional questions regarding field-work, and RCCD and the Hampton Conservation Commission for information on any future workshops (provided in previous reports). Both Conservation Commissions mailed the letter to all abutters.
- ❖ RCCD met with both Conservation Commissions and wetland consultant to discuss status of project. Wetland consultant completed the aerial photographic interpretation and then Geographic Information Systems (GIS) Analysis (see Appendix C).
- ❖ RCCD organized and coordinated a second public meeting to discuss the initial findings of the wetland assessment and what data had been collected, and habitat assessment and management/conservation options with regard to the Taylor River Watershed. The program brochure was distributed throughout both

communities, presented on local access cable, and provided to local newspapers for distribution. Abutters were also notified. UNH Cooperative Extension staff and the wetland consultant prepared a presentation that was very well attended in Hampton Falls. There were several good questions put forth by the audience, indicating that residents in fact needed additional education on this topic.

- ❖ Wetland complexes were reviewed by the wetland consultant that met the criteria for prime wetland designation which includes: 1) that wetlands must meet the standard regulatory definition of wetlands, i.e. they must have the presence of hydric soils, hydrophytic vegetation, and wetlands hydrology, and 2) that at least 50% of the candidate wetland must have Type A Hydric Soils, and the remaining soils must be Type B Hydric Soils.
- ❖ Using these criteria the wetland consultant initially put forth seven wetland complexes selected for evaluation and consideration for potential prime wetland designation. After a couple of public meetings and additional review of the available data, those wetland complexes were effectively condensed to four candidate wetland complexes that would then be evaluated using the NH Method (*Method for Comparative Evaluation of Nontidal Wetlands in New Hampshire* (1991)).
- ❖ For this study, all fourteen wetland functions and values outlined in the NH Method were evaluated for the four candidate wetland complexes chosen. More detailed information on each of the wetland functions and values for each wetland complex chosen can be found in Appendix C, and include:
 - Ecological Integrity – Evaluates the overall health and function of the wetland ecosystem;
 - Wetland Wildlife Habitat – Evaluates the suitability of the wetland as habitat for those animals typically associated with wetlands and wetland edges;
 - Finfish Habitat – Evaluates the suitability of watercourses, ponds, or lakes associated with the wetland for either warm water or cold water fish;
 - Education Potential – Evaluates the suitability of the wetland as a site for an “outdoor classroom”;
 - Visual/Aesthetic Quality – Evaluates the visual and aesthetic quality of the wetland;
 - Water-Based Recreation – Evaluates the suitability of the wetland and associated watercourses for non-powered boating, fishing, and other similar recreational activities;
 - Flood Control Potential – Evaluates the effectiveness of the wetland in storing floodwaters and reducing downstream flood peaks;
 - Groundwater Use Potential – Evaluates the potential use of the underlying aquifer as a drinking water supply;

- Sediment Trapping – Evaluates the potential of the wetland to trap sediment in runoff water from surrounding upland;
 - Nutrient Attenuation – Evaluates the potential of the wetland to reduce the impacts of excess nutrients in runoff water on downstream lakes and streams;
 - Shoreline Anchoring and Dissipation of Erosive Forces – Evaluates the effectiveness of the wetland in preventing shoreline erosion;
 - Urban Quality of Life – Evaluates the potential for the wetland to enhance the quality of urban life by providing wildlife habitat and other natural values in an urban setting;
 - Historical Site Potential – Evaluates for indications of use by early settlers;
 - Noteworthiness – Evaluates the wetland for certain special values such as critical habitat for endangered species, or exemplary natural communities, etc.
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- ❖ RCCD completed an NHEP funding application for continued prime wetlands inventory and assessment and possible designation at the request of the Hampton Falls Conservation Commission. This application was submitted as a joint application with the Hampton Conservation Commission to evaluate the remainder of wetland complexes in each community. The NHEP approved the funding request, and additional wetlands inventory and assessment and possible prime wetlands designation for both communities will be completed in 2005.
 - ❖ Throughout the entire project the RCCD staff met with representatives from both the Towns of Hampton and Hampton Falls. RCCD was in constant contact with the wetland consultant during the entire project to ensure project timeframes and expected outcomes were delivered. RCCD provided information to several members of the public on the overall project, and on the educational initiatives that were being arranged. This aspect of the project involved several personal contacts with RCCD, as well as numerous email and phone conversations, and additional meetings.
 - ❖ Once the NH Method was completed for each of the four candidate wetland complexes chosen, RCCD organized and coordinated the final public workshop to present the results of the findings, and to discuss prime wetlands designation laws and regulations (at the local and state level). The program brochure was distributed throughout both communities, presented on local access cable, and provided to local newspapers for distribution. Abutters were also notified by direct mailings from both Conservation Commissions (see Appendix B).
 - ❖ Several additional meetings took place near the end of the project. After reviewing the data presented as well as several discussions with NH DES and town officials, and having received notification that additional funding would be available to complete the wetland inventory and assessment for the remainder of both communities, it was jointly decided to postpone the drafting of local warrant articles until 2006. Therefore, no warrant articles were drafted and mapping

requirements per NH DES for submittal for prime wetlands designation were not prepared within the timeframe of this project.

- ❖ An additional draft final presentation was presented by the wetland scientist and incorporated the final data and findings, prior to the final public presentation. This meeting in particular was extremely informative to all of the Commission members in attendance, and was hopefully helpful to the wetlands consultant as well. Questions on data, appearance of data on GIS maps, and the town responses to questions regarding prime wetlands designation were all reviewed.
- ❖ The final presentation was well received by all that attended, and there were several excellent questions presented by those in attendance. Town staff and officials attended, as well as several interested residents (see Appendix B). With the knowledge that the inventory and assessment would continue, several residents were pleased that additional information would be provided to them. In addition, through the educational efforts, at least two residents are now interested in permanent protection efforts within the Taylor River Watershed.
- ❖ These accomplishments are due in large part to the success of the educational efforts and technical assistance provided under the *Wetlands Assessment, Inventory, and Prime Wetland Designation Project in the Taylor River Watershed* project.

Results and Discussion

The two main objectives at the onset of the *Wetlands Assessment, Inventory, and Prime Wetland Designation Project in the Taylor River Watershed* project have been achieved. The variety of formal and informal workshops offered were well attended with valuable information provided, and excellent questions asked by the various participants. Considerable educational efforts on the importance of these significant wetland resources, and municipal options for documenting and potentially protecting these natural resources were provided to municipal officials and residents alike. The outcome from these educational efforts led both communities to have tremendous support to continue assessing their critical wetland resources, and to understand what prime wetlands designation means at the local and state level. Additionally many residents became more aware of wildlife habitat, the importance of riverine protection, and of the special values and functions that these noteworthy natural resources possess. Increasing the awareness of natural resources and of options to protect those resources among both municipal officials and community members proved to be an outstanding success in both communities.

A strong similarity between each communities' success from this project was in the recognition of the importance and uniqueness of the disappearing shoreland/riverine resources within this watershed. Moreover, the coverage of the chosen four prime wetland candidate boundaries clearly extends beyond town borders (and beyond the towns involved in this project). This is a wonderful opportunity for each of the

communities to collaborate with adjacent communities in these areas to expand the educational initiatives, and to assist in protecting these resources, which would benefit the entire health of the watershed.

It should also be noted that the study area for this project was restricted to the Taylor River corridor which included a portion of the Ash Brook and Old River (as originally designated by the Conservation Commissions, and shown on Map 1, as well as Grapevine Run and a large wetland complex to the east of Route 95 in Hampton (see Appendix A & Appendix C). With this in mind, there are several items to note including that while the four prime wetland candidates that were analyzed all ranked very high in all function and value categories, the small study area created interesting situations that should be taken in to consideration while reviewing the data:

- 1) The study area truncated large wetland complexes at arbitrary points. The majority of the wetlands analyzed in this assessment extend well beyond the limit of the study area; and
- 2) The restricted area of the study limits the size of the prime candidate set and makes the comparison of relative value difficult.

With these factors in mind, the GIS data layers associated with this project, as well as the NH Method assessments, were assembled in such a manner as to prepare for a relatively easy integration of this phase and the proposed Phase II assessment of the town-wide wetlands inventory. Additionally, it is possible to draw some conclusions about high-value wetland complexes within each of the four candidate areas, which can be found in greater detail in Appendix C.

Moreover, there were several recommendations provided that relate to the significant upland and wetland habitat, conservation opportunities, and restoration potential within the project focus area. Both communities are pleased to be getting additional information and data relating to the health and uniqueness of these four potential candidates for prime wetlands designation. This will assist both communities to move forward with funding requests for restoration opportunities or new management initiatives to enhance and protect the natural resources within these designated areas. This information also will provide additional support to coordinate and cooperate on joint natural resource ventures or conservation projects between these two communities and adjacent communities. In fact, the educational programs provided for during the length of this project has brought forth at least two land owners interested in permanent protection options along the Taylor River corridor. With the technical assistance provided for under this project, and the knowledge gained on the critical natural resources located within the focus areas of these two communities, both communities have prevailed with educating themselves, as well as many of the residents, which is a success in itself. Another success of the *Wetlands Assessment, Inventory, and Prime Wetland Designation Project in the Taylor River Watershed* project is that the information provided for in this inventory and assessment will allow each community to make more informed land-use decisions, as well as to continue to educate and inform residents about these unique natural resources.

It is interesting to note that this project has motivated both Conservation Commissions to continue to study and assess their wetland resources, which will continue into at least the next year. This was a very new avenue for both communities to undertake, and both are now jointly enthusiastic to continue with successful assessments and educational initiatives on wetland resources and protection options. Both communities unanimously approved moving forward with an additional request to complete the wetlands assessment and inventory in each community. This component of the *Wetlands Assessment, Inventory, and Prime Wetland Designation Project in the Taylor River Watershed* project would never have occurred if the significant educational and outreach efforts during the past year had not been completed.

The Hampton and Hampton Falls Conservation Commissions are now motivated to continue with large-scale resource assessment and conservation efforts within each community, with assistance from those agencies and groups that have been working with them throughout this project. The overall project has allowed both communities to advocate for critical resource identification, protection options and techniques, and has clearly strengthened the local capacity of both Conservation Commissions. Both communities also appreciate the ability to assist landowners in town with information on resources in each community, and also on how they may assist with protecting these exceptional resources. This accomplishment is the direct consequence of the data collected and provided, as well as on the education, outreach, and technical assistance provided under the *Wetlands Assessment, Inventory, and Prime Wetland Designation Project in the Taylor River Watershed* project.

The Towns of Hampton and Hampton Falls have significantly expanded their conservation capacity through the *Wetlands Assessment, Inventory, and Prime Wetland Designation Project in the Taylor River Watershed* project. Most of all, both Conservation Commissions are now ready to continue with additional wetland resource inventory and assessment opportunities, and to coordinate on these efforts both amongst themselves, with adjoining communities, and with residents. All of these positive outcomes are the direct result of the *Wetlands Assessment, Inventory, and Prime Wetland Designation Project in the Taylor River Watershed* project. It is very likely that this effort will be a catalyst for additional enhancement and perhaps protection efforts in both communities, and hopefully will extend to adjacent communities within the Hampton Harbor and NH Coastal Watersheds.

Conclusions

The *Wetlands Assessment, Inventory, and Prime Wetland Designation Project in the Taylor River Watershed* project has ended successfully. The conservation commission members that have been involved with this project have strengthened their capacity to educate residents on critical wetland resources, conservation and management options, and the laws and rules regarding prime wetlands designation at the local and state level. Obviously, the results achieved from a drafted and perhaps passed local warrant article designating prime wetlands within each community would have highlighted the ultimate success of the *Wetlands Assessment, Inventory, and Prime Wetland*

Designation Project in the Taylor River Watershed project. However, it is well known that resource evaluations and the resultant accomplishment of management practices can often take a long time. So both communities are pleased to be moving forward with the continued wetlands inventory and assessment of these unique and valuable resources, and are encouraged that they will be continuing to educate residents, municipal officials, and visitors alike on prime wetlands designation and options to protect these resources. That in itself is a significant accomplishment for the health of the entire NH Coastal Watershed. Moreover, due to the increases in requests for technical assistance for these types of services from communities throughout Rockingham County, RCCD can confirm that the type of assistance offered to the Towns of Hampton and Hampton Falls has significantly expanded their conservation capacity through this project, which is desired, and therefore should be considered another accomplishment of this project.

Recommendations

Coastal communities in Rockingham County are now feeling immense development pressures, and there are development plans hitting every corner of town, targeting every resource including previously assumed undevelopable lands. The conservation commissions now recognize the importance of having accurate natural resource data. The higher the quality of data available to them, the more informed they can be with both land-use decisions and with their recommendations or requests to others. Moreover, the ability to offer stronger protection measures provides these communities a greater chance at potentially protecting these significant natural resources. With more accurate data and new resource recommendations, communities may be able to obtain support for protective overlay zones, prime wetlands designation, and possibly additional funds. Moreover, other related resource projects may be more readily completed if additional funds were requested or provided to the conservation commissions. The information provided on the resources within the project focus area, combined with the educational initiatives, has been a great success for this project.

All of the components of this project led to significant educational opportunities for all involved, and that is a most impressive outcome. The considerable outreach and educational efforts that resulted from this project achieved significant conservation enthusiasm within both communities. Moreover, any further conservation or natural resource projects that are implemented because of this project will emphasize the importance of this work, and the importance of the stewardship of the natural resources within each community, and within the Taylor River and NH Coastal Watersheds. This result not only benefits the communities involved, but also benefits all that live and enjoy in the NH Coastal Watershed.